

ABSTRACT OF THE INVENTION

The invention relates to the manufacture of a substrate which is particularly suitable for EUV micro-lithography and comprises a base layer of low coefficient of thermal expansion (CTE) onto which at least one cover layer made of a semiconductor material is applied. Preferably, the cover layer is a silicon layer, preferably applied by ion beam sputtering. By an additional ion beam figuring treatment substrates of extremely accurate shape and extremely low roughness can be prepared.